

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: LONG POND	Lake Area (ha): 36.18
Town: DANVILLE	Maximum depth (m): 3.9
County: Rockingham	Mean depth (m): 1.6
River Basin: Merrimack	Volume (m <sup>3</sup> ): 566000
Latitude: 42°55'12" N	Relative depth: 0.6
Longitude: 71°05'55" W	Shore configuration: 1.22
Elevation (ft): 144	Areal water load (m/yr): 13.04
Shore length (m): 2600	Flushing rate (yr <sup>-1</sup> ): 8.30
Watershed area (ha): 1036.0	P retention coeff.: 0.52
% watershed ponded: < 0.10	Lake type: natural w/dam

BIOLOGICAL:

		11 January 1996	31 August 1995
DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 55%	DINOBRYON 55%
	#2	THIN FILA. BL-GR 25%	ASTERIONELLA 20%
	#3		RHIZOLENIA 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			4.41
DOM. ZOOPLANKTON (% TOTAL)	#1	NO DOMINANTS	KERATELLA 35%
	#2		VORTICELLA 15%
	#3		NAUPLIUS LARVA 12%
ROTIFERS/LITER		8	225
MICROCRUSTACEA/LITER		8	180
ZOOPLANKTON ABUNDANCE (#/L)		21	511
VASCULAR PLANT ABUNDANCE			Common/Abun
SECCHI DISK TRANSPARENCY (m)			2.6
BOTTOM DISSOLVED OXYGEN (mg/L)		3.3	7.7
BACTERIA (E. coli, #/100 ml)	#1		2
	#2		49
	#3		

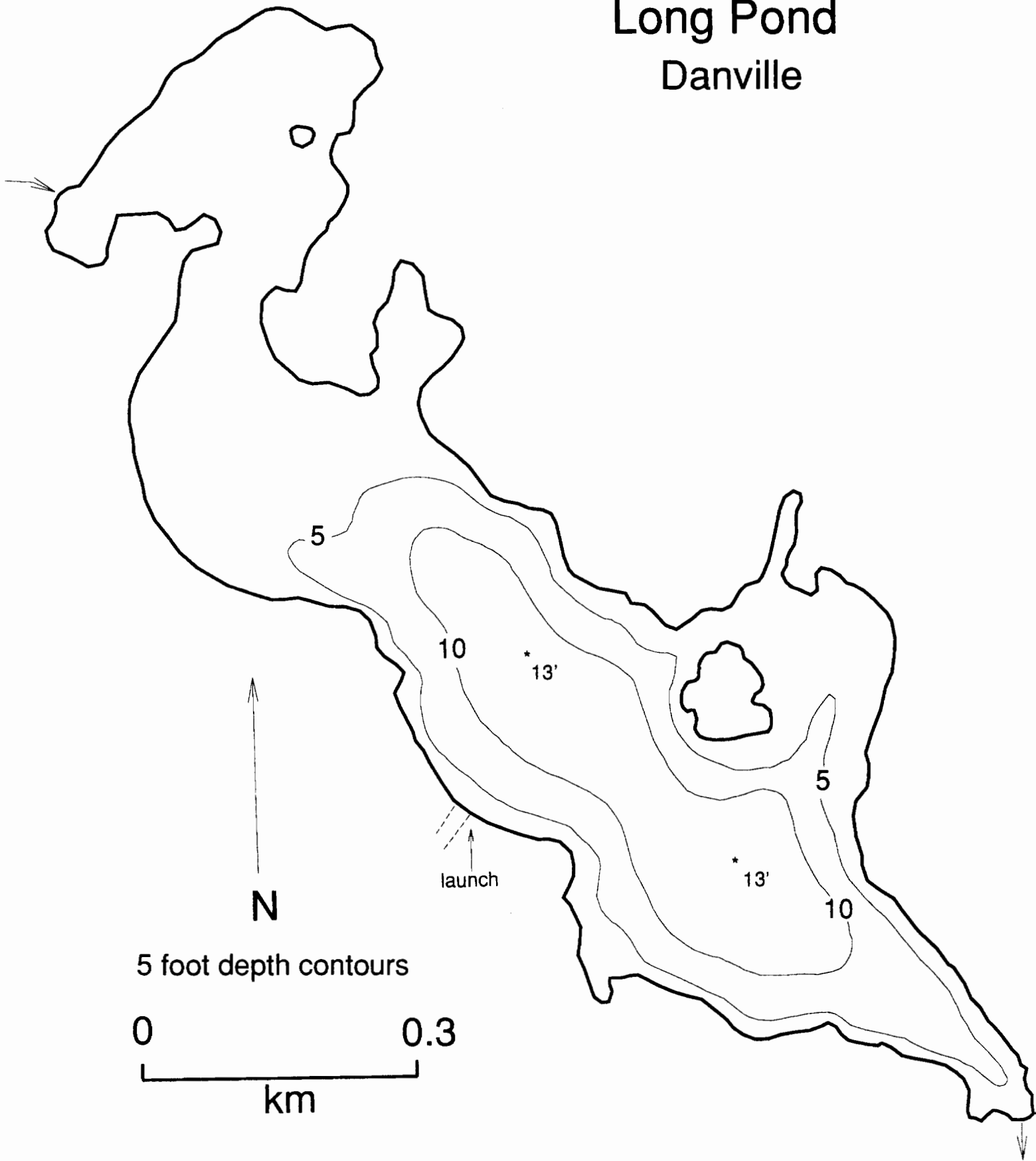
SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>): None  
Anoxic volume (m<sup>3</sup>): None

<b>CHEMICAL:</b>		Lake: LONG POND Town: DANVILLE			
		11 January 1996		31 August 1995	
DEPTH (m)		1.0	3.0	1.0	2.5
pH (units)		5.6	5.8	7.1	6.9
A.N.C. (Alkalinity)		7.7	8.0	8.1	7.7
NITRATE NITROGEN	< 0.10	< 0.10	< 0.10		< 0.10
TOTAL KJELDAHL NITROGEN	0.38	0.47	0.47		0.44
TOTAL PHOSPHORUS	0.006	0.009	0.013		0.012
CONDUCTIVITY ( $\mu$ mhos/cm)	126.7	129.2	105.8		106.5
APPARENT COLOR (cpu)	90	90	60		65
MAGNESIUM			1.32		
CALCIUM			5.3		
SODIUM			12.0		
POTASSIUM			1.15		
CHLORIDE	23	24	24		24
SULFATE	13	13	5		5
TN : TP	63	52	36		37
CALCITE SATURATION INDEX			2.6		
All results in mg/L unless indicated otherwise					
<b>TROPHIC CLASSIFICATION: 1995</b>					
	D.O.	S.D.	PLANT	CHL	TOTAL CLASS
	**	3	4	1	8 Meso.
<b>COMMENTS:</b>					
<ol style="list-style-type: none"> <li>1. This pond was previously surveyed and classified in 1982. It was rated eutrophic in 1982, primarily because of a dissolved oxygen depletion in the bottom waters. Water clarity was significantly better in 1995 (8.5 feet versus 3 feet).</li> <li>2. This is a dark tea-colored pond with extensive wetland areas along much of its shore, particularly the northern end.</li> <li>3. Sodium and chloride levels suggest salt runoff into the pond.</li> <li>4. A small, rough public boat launch area was present.</li> </ol>					

# Long Pond Danville



[illegible]

[illegible]

[illegible]